

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 1, 3-10, 12-19, 21-37 and 39-47 were pending. Within the Office Action, Claims 1, 3-10, 12-19, 21-37 and 39-47 have been rejected. By the above amendments, Claims 1, 7, 10, 16, 19, 25, 28, 34, 37, and 44 have been amended. Accordingly, Claims 1, 3-10, 12-19, 21-37 and 39-47 are now pending.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 1, 3-10, 12-19, 21-37 and 39-47 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,404,142 to Tischer (hereinafter “Tischer”) in view of U.S. Application No. 2002/0143819 to Han et al. (hereinafter “Han”). Applicants respectfully disagree.

Tischer teaches a structure file defining the hierarchical structure and a plurality of content files each defining a set of digital content items. [Tischer, Abstract] Each content file is related to a position within the hierarchical structure, thereby organizing the digital content items into the hierarchical structure. [Tischer, col. 4, lines 24-25] To present categories and digital content items rapidly, categories are read from the structure file and sets of digital content items are read from each content file. [Tischer, col. 4, lines 54-57] The hierarchical structure maps categories to areas on a display, as illustrated in FIGS. 3a-b. Specifically, categories of the first layer from the structure file is read and mapped to areas on the display. [Tischer, col. 6, lines 36-37] Continuously, a location on the display is received via a pointing device and a category corresponding to the received location is displayed. [Tischer, col. 7, lines 39-46] Tischer does not teach that a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is **selectively** offered and distributed. Instead, Tischer teaches that the digital content is a text string, a text file, a graphical image file, an audio file, or XML files. The digital content is always displayed when chosen by the user. [Tischer, col. 4, lines 25-27, 49-50]

In contrast, the presently claimed invention teaches that data content is organized, and thereby distributed, according to a hierarchical data content structure defined by ICE DTD extensions. The hierarchical data content structure provides a means for organizing the data content. The hierarchical data content structure includes a plurality of channels, and each

channel is segmented into one or more content sub-channels. Each individual data content item is associated with at least one of the content sub-channels and corresponding channel. The individual data content item is associated with a particular channel according to the subject matter of the individual data content item and the subject-matter of the channel. [Present Specification, Abstract] A subscription defines which channels, or content sub-channels, that a subscribing network device is enabled to receive data content from. In this manner, data content categorized by subject-matter is **selectively** offered and distributed to subscribers according to the subscription service. [Present Specification, page 6, line 32 - page 7, line 2]

For example, when a second network device requests a particular data content item from a first network device, the requested data content item is distributed to the second network device according to a subscription entered into by the second network device. The subscription is part of the subscription service provided by the first network device. As such, data content is categorized by subject-matter and is selectively offered and distributed to subscribers. [Present Specification, page 14, lines 19-25] As discussed above, Tischer does not teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed.

Further, it is stated within the Office Action that Tischer “fails to disclose the communication layer providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices.” Han is apparently cited for this reason.

Han teaches a syndicator for disseminating Web services and other resources from service and content providers to service consumers and for establishing and implementing a subscription agreement which specifies the terms upon which digital assets are provided to the subscribing consumers. [Han, Abstract] However, Han does not teach that a hierarchical data content structure comprises a plurality of channels to store data content. As such, Han does not teach that the data content stored in the plurality of channels is selectively offered and distributed. Therefore, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed.

The independent Claim 1 is directed to a network device coupled to a network of devices. The network device of Claim 1 comprises one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a

communications protocol to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is **selectively** offered and distributed. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these reasons, the independent Claim 1 is allowable over the teachings of Tischer, Han and their combination.

Claims 3-9 are dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 3-9 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 10 is directed to a method of providing data content between a first network device and one or more other network devices. The method of Claim 10 comprises providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is **selectively** offered and distributed, and transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol content. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these reasons, the independent Claim 10 is allowable over the teachings of Tischer, Han and their combination.

Claims 12-18 are dependent on the independent Claim 10. As described above, the independent Claim 10 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 12-18 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 19 is directed to an apparatus for providing data content between a first network device and one or more other network devices. The apparatus of Claim 19 comprises means for providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, means for providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, means for configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is **selectively** offered and distributed, and means for transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these reasons, the independent Claim 19 is allowable over the teachings of Tischer, Han and their combination.

Claims 21-27 are dependent on the independent Claim 19. As described above, the independent Claim 19 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 21-27 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 28 is directed to a network. The network of Claim 28 comprises one or more network devices, and a first network device coupled to the one or more other network devices. The first network device comprises one or more applications, a network layer coupled to interface with the one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the first network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is **selectively** offered and distributed. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these

reasons, the independent Claim 28 is allowable over the teachings of Tischer, Han and their combination.

Claims 30-36 are dependent on the independent Claim 28. As described above, the independent Claim 28 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 30-36 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 37 is directed to a network device coupled to a network of devices. The network device of Claim 37 comprises one or more applications, a network layer coupled to interface with one or more other network devices, an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and extensions to the document type definitions, wherein document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these reasons, the independent Claim 37 is allowable over the teachings of Tischer, Han and their combination.

Claims 39-43 are dependent on the independent Claim 37. As described above, the independent Claim 37 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 39-43 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 44 is directed to a network device coupled to a network of devices. The network device of Claim 44 comprises one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed, wherein each channel within the plurality of channels includes one or

more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel, wherein the metadata defines attributes of each of the plurality of channels, each of the sub-channels and each of the data content. As described above, neither Tischer, Han nor their combination teach a hierarchical data content structure comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. For at least these reasons, the independent Claim 44 is allowable over the teachings of Tischer, Han and their combination.

Claims 45-47 are dependent on the independent Claim 44. As described above, the independent Claim 44 is allowable over the teachings of Tischer, Han and their combination. Accordingly, Claims 45-47 are all also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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